Figure 1. Overview of Process

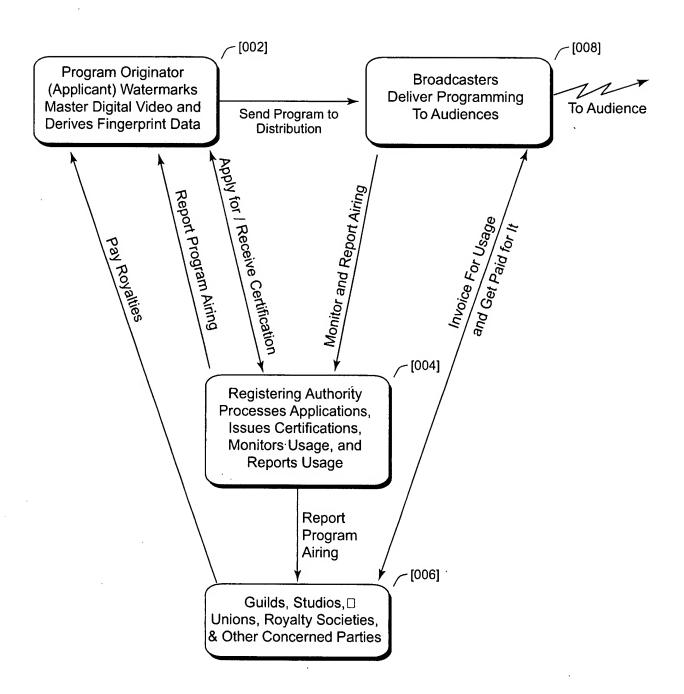


Figure 2. Watermark And Fingerprint Process

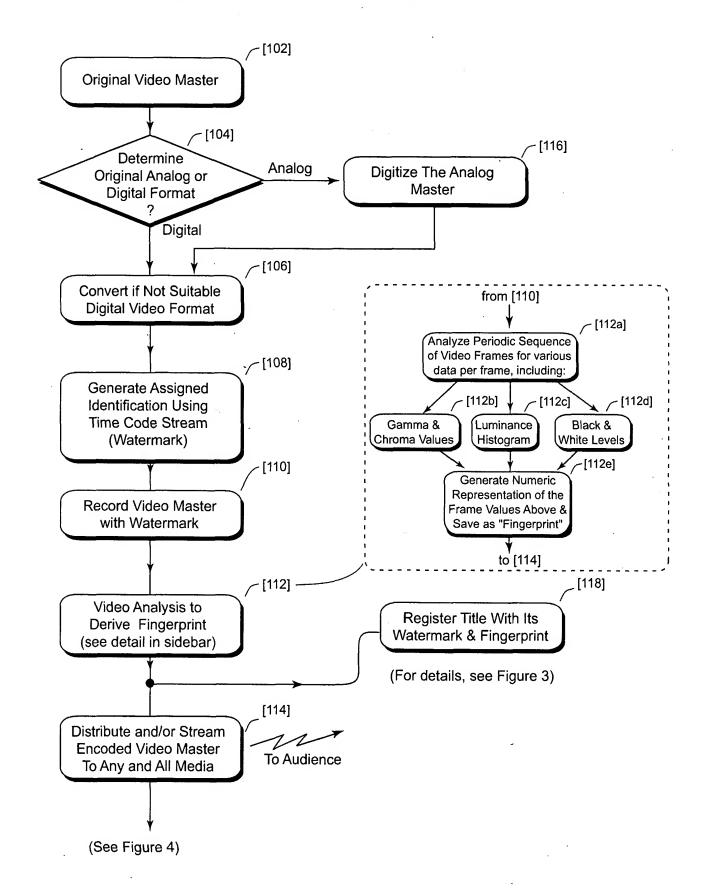
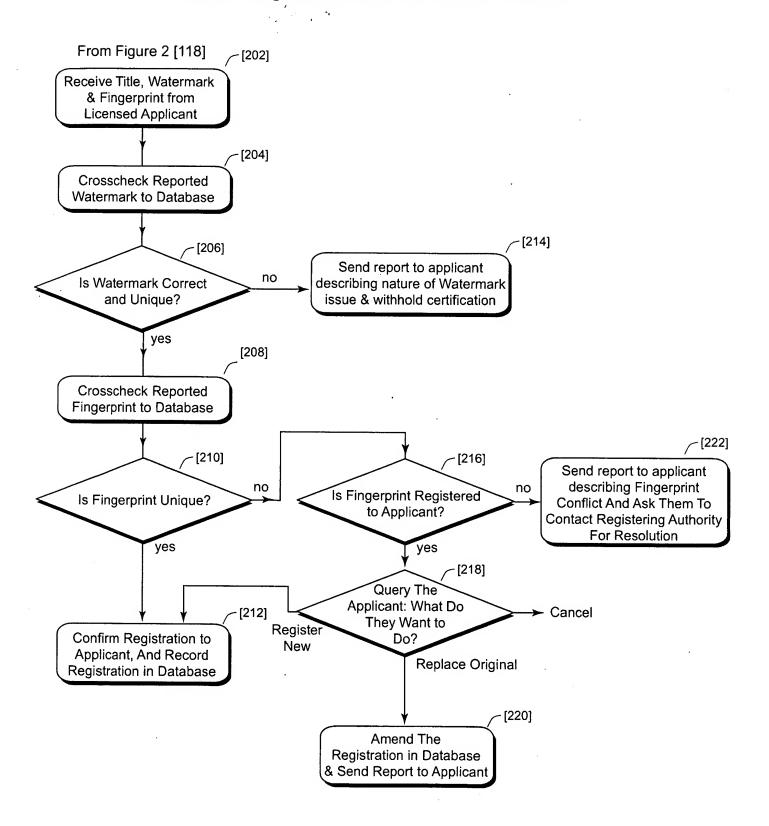


Figure 3. Registration & Authentication Process



From Figure 2 [114] [302] Detect Broadcast or Tuners, Web Browsers, & [302a]_ Streamed Video at Other Applicable Video Field Monitoring Distribution Receivers Stations Worldwide - [302b] (See detail in sidebar) Analyze Periodic Sequence [302g] of Video Frames for various -[304] Detect and data per frame, including: Read Coded **Data Processing Facility** Watermark Data [302c] ~ [302e] Receives Watermark and Gamma & Luminance Black & Fingerprint From Chroma Values Histogram White Levels **Monitor Stations** [302f] Generate Numeric - [306] Representation of the Frame Values Above & Crosscheck Received Save as "Fingerprint" Watermark to Database to[304] to[304] [316] [308] Crosscheck Received no Does Watermark Match Fingerprint to Database any Registered yes [318] no Does This Fingerprint Match Any in -[326] **-[310]** Databasé ? It's Completely Compare Reported yes **Unregistered Material** Fingerprint to Database [320] **~[328]** Report to registered fingerprint owner Log Station, Time Of (w/station ID & time) Airing, Show Length, and Save Fingerprint [312] [322]in "Unregistered" File no no Does This Fingerprint Does Fingerprint Match Match Any Other in Watermark? - [330] Database? Report to Registered Watermark yes yes Owner That Aired Program Does Not Match Fingerprint. [314] -[324] Report Properly Registered Program Report to All Involved Parties Aired, With the Station ID and Time to That Watermark and Fingerprint Don't Studios, WGA, DGA, SAG, AFTRA, Belong to Same Registered Program AFM, BMI, ASCAP, and Other Guilds, Distributors & Studios Worldwide.

Figure 4. Monitoring, Detection & Reporting Process